**IN THE UNITED STATES DISTRICT COURT**
**EASTERN DISTRICT OF TEXAS**
**MARSHALL DIVISION**

| | | |
|---|---|---|
| **INNOVATIVE DISPLAY TECHNOLOGIES LLC,** | § | |
| | § | |
| **Plaintiff,** | § | **C.A. No. 2:13-cv-522** |
| | § | **(Consolidated – Lead Case)** |
| **v.** | § | |
| | § | **JURY TRIAL DEMANDED** |
| **ACER INC. AND ACER AMERICA CORP.,** | § | |
| | § | |
| **Defendants.** | § | |
| | § | |

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**PLAINTIFF'S OPENING CLAIM CONSTRUCTION BRIEF**

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Plaintiff Innovative Display Technologies LLC ("Plaintiff" or "IDT") hereby files its opening claim construction brief pursuant to the Court's Docket Control Order, Dkt. No. 37.

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## I. PATENTS-IN-SUIT

IDT asserts seven United States patents in this lawsuit: (1) 6,755,547 ("the '547 patent"); (2) 7,300,194 ("the '194 patent"); 7,404,660 ("the '660 patent"); (4) 7,384,177 ("the '177 patent"); (5) 7,434,974 ("the '974 patent"); 7,537,370 ("the '370 patent"); and 8,215,816 ("the '816 patent") (collectively, the "patents-in-suit"). The seven patents-in-suit all share a common parent patent and have virtually the same written descriptions, with only minor variations between them. The patents-in-suit also share the same inventor, Jeffery R. Parker. Generally, the patents-in-suit relate to the field of backlights, which can be used to illuminate liquid crystal displays, known as LCDs.

## II. TECHNOLOGY OVERVIEW

Many consumer products today, such as televisions, laptops, smart phones, and tablets, use LCDs to display images and video. The liquid crystals inside an LCD are its operative parts. Liquid crystals themselves do not emit light. Therefore, for an LCD to produce an image that we can see, the LCD requires a separate light source. Typical LCDs use a backlight for that light source. A backlight sits behind the LCD and shines light through the LCD toward the viewer. A basic backlight for an LCD consists of several parts: a panel (sometimes called a light guide or optical conductor), an LED strip (light sources), a tray, and films, as seen in the simplified graphic at Illustration 1 below.

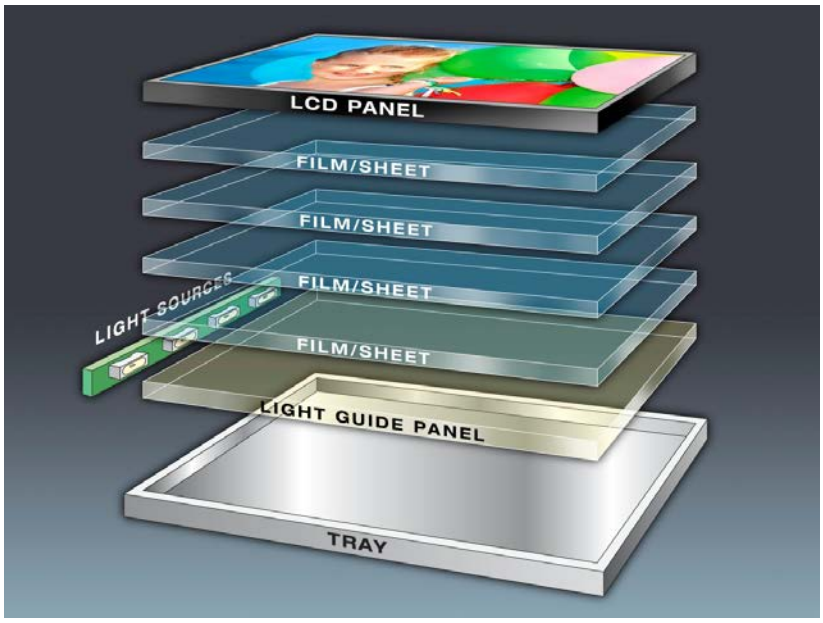



*Illustration 1*

In the accused products, the panel of a backlight receives light from a strip of light emitting diodes ("LEDs") on its edge(s). A backlight's panel uses an arrangement of deformities improve the efficiency, uniformity, and the visual appearance of light it emits. When light hits one of the deformities on the panel, it is either emitted from the panel at that point or it is reflected to the opposite side of the panel and emitted on that side.

The proper placement of deformities will cause the panel to emit more uniform and efficient light. For example, a panel can be designed to have a small number of deformities close to the LED light sources. That small number of deformities limits the amount of light that escapes the panel on the side near the LEDs, where light is abundant. At the far side of the panel away from the LEDs, there is less light available. Therefore, the far side of the panel can be designed to have more deformities, which causes the panel to extract more of the available light that reaches the far side. Arranging the deformities in that manner can correct the imbalance between the light emitted from the near side of the panel versus the light emitted from the far side of the panel.

The deformities themselves can be a variety of shapes and sizes in a variety of patterns. For example, the deformities can be circles, prisms, lenses, or ridges. They can be formed, for example, as protrusions or depressions. The deformities can be set in a rigid pattern, in a random placement pattern, or in a variable pattern.

Most backlight panels include a transition region in the area of the panel nearest to the LED strip. The transition region generally allows the light to distribute more evenly when it first enters the panel from the LEDs. Light travels through the transition region until it reaches the part of the panel that is designed to allow light to escape and illuminate the LCD. To better allow light to travel through it, the transition region will have fewer or none of the deformities found on the rest of the panel.

A backlight also generally includes sheets or films that are placed on top of the panel to further condition the light before it enters the LCD. Air gaps between the panel and films as well as between the films themselves are created to ensure the light mixes properly and does not show interference effects to the viewer of an LCD. A film can include small deformities on its back

surface, with those deformities causing an air gap between the film and the part of the backlight below it.

A typical backlight includes a tray that holds in place the panel, LEDs, films, and other components. The films, LEDs, panel, and tray must all be carefully aligned and spaced relative to each other for the backlight to function properly and to give the display the best visual appearance possible. If the LEDs and the panel are not carefully aligned, some of their light will miss the panel and be wasted. If the films are not carefully placed and spaced apart they will likewise fail to properly condition the light. The tray can be designed with features to the hold the panel, films, and LEDs strips in the proper place to avoid those issues. Examples of such features are tabs on the films and tray.

In addition to holding those components in place, the tray is also used to reflect light that escapes the panel, and would otherwise be wasted, back into the panel. The efficiency of backlights is critical to their operation, and any light that escapes the backlight and is not directed toward the LCD is wasted. Wasted light increases the power consumption and reduces battery life of display devices such as laptops, phones, and tablets. Wasted light also decreases the brightness of the displays of such devices. Therefore, the trays are designed to conserve as much light as possible by reflecting light that would otherwise be wasted back into the panel and ultimately directing that light toward the LCD.

A backlight is ideally designed to achieve the entire light transmission process from the LED strip through LCD panel while losing the least light possible, *i.e.*, in the most efficient manner possible. The more light that is lost in that process, the more power needed to replace the lost light; if the lost light is not replaced, the LCD will appear dimmer to the viewer. A well-designed

backlight transmits light through an LCD with low loss to conserve power and provide a brighter and more uniform image to the user.

The design of a backlight is an intensive and careful process designed to maximize efficiency such that light travels through backlight and through the LCD with low loss. The backlight and its components are usually modeled in a computer simulation that predicts how rays of light will travel through the backlight and emerge from it. Using those models, the components of the backlight are carefully designed to best meet the purpose or application of the backlight. If the purpose of the backlight is to illuminate an LCD, all of the components of the backlight are engineered in consideration of that purpose. The trays are carefully designed to make sure that they reflect as much light as possible back into the panel for transmission to the LCD. The panels and films are carefully modeled, including the placement of their deformities, to cause their emitted light to have the uniformity and distribution that best advances the goal of illuminating the LCD.

## III. TERMS IN DISPUTE

### A. "Pattern of Deformities" Terms

| TERM | IDT'S CONSTRUCTION | DEFENDANTS' CONSTRUCTION |
|---|---|---|
| "pattern of deformities"[1] | "a pattern of deformities that can be an ordinary pattern, random placement pattern, or a variable pattern" | plain and ordinary meaning |
| "pattern of light extracting deformities"[2] | "a pattern of deformities that can be an ordinary pattern, random placement pattern, or a variable pattern" | plain and ordinary meaning |

[1] '547 patent, claim 1; '660 patent, claims 1, 33. For instances in which a claim term first appears in an independent claim, that term's respective dependent claims have been omitted from this footnote and others like it for brevity. Nonetheless, these terms and constructions should also be considered to apply to those respective dependent claims regardless of whether the term explicitly appears in the dependent claim. These terms and constructions also apply to asserted claims in which a respective term appears regardless of whether that claim is explicitly listed in these footnotes.

[2] '974 patent, claims 1, 7, 13; '370 patent, claims 1, 13, 29, 47; '816 patent, claim 1.

IDT's proposed construction for these terms encompasses the explicit intent of the inventor to use this term to include a broad variety of patterns. In contrast, Defendants' argument for "plain and ordinary" meaning is an attempt exclude certain "patterns of deformities" specifically described in the preferred embodiments of the specification.

***1. The preferred embodiments include "patterns of deformities" that are "variable patterns" and "random placement patterns."***

The specification of the patents-in-suit describes "variable" and "random placement" patterns, indicating that the inventor intended to include those patterns in his definition of "pattern of deformities." The specification states, "The pattern of light extracting deformities 21 shown in FIG. 4a includes a variable pattern which breaks up the light rays." *See, e.g.,* '547 patent at col. 4, ll. 46-48 (emphasis added). The specification further states, "Additionally, the deformities may vary in shape and/or size along the length and/or width of the panel members. Also, a random placement pattern of the deformities may be utilized throughout the length and/or width of the panel members." *Id.* at col. 5, ll. 51-55 (emphasis added). Those statements make it clear that the inventor of the patents-in-suit intended a "pattern of deformities" to include "variable patterns" and "random placement patterns."

Figure 4a of the patents-in-suit further demonstrates the inventor's intent to include a "random placement pattern" within the scope of a "pattern." Figure 4a graphically depicts a "random placement pattern" as the "pattern of light extracting deformities or disruptions 21" shown in the far left-hand circle 21 (green). *See id.* at Fig. 4a below and at col. 4, ll. 40-42 ("Figure 4a schematically shows [a] light surface area 20 on which a pattern of light extracting deformities or disruptions 21 is provided." *Id.* at col. 4, ll. 40-42 (emphasis added).

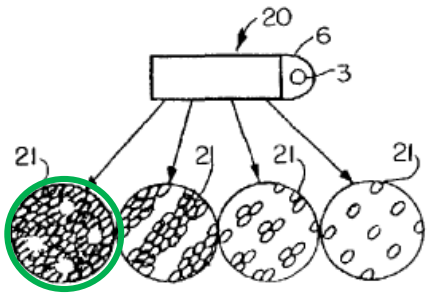



FIG. 4a

The statements above from the specification that describe the "variable pattern," the "random placement pattern," and Figure 4a occur in the section titled "Detailed Description of the Preferred Embodiments." *Id.* at col. 2, ll. 59-61 (emphasis added). It is "well established that a claim construction that excludes a preferred embodiment is '*rarely, if ever, correct.*'" *Dow Chem. Co. v. Sumitomo Chem. Co., Ltd.*, 257 F.3d 1364, 1378 (Fed. Cir. 2001) (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583) (emphasis in *Dow*). If the Court construes this term as "plain and ordinary meaning" it risks excluding the preferred embodiments of "variable pattern" and "random placement pattern." Instead the Court should adopt IDT's construction, which explicitly includes "variable patterns" and "random placement patterns" as well as "ordinary patterns" of deformities.

***2. The claims themselves show that a "pattern of deformities" includes deformities that randomly vary in placement.***

Courts "look to the words of the claims themselves, both asserted and nonasserted, to define the scope of the patented invention." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). Claim 1 of the '547 patent includes the term "a pattern of deformities." Its dependent claim 19 states, "The assembly of claim 1 wherein the deformities randomly vary in placement on the sheet or film." (emphasis added). That language from claim 19 indisputably shows that the inventor intended the "pattern of deformities" in claim 1 to encompass deformities

that "randomly vary in placement." Nevertheless, Defendants' "plain and ordinary meaning" construction would exclude random placement patterns. Accordingly, the Court should reject Defendants' construction and instead enter IDT's construction, which follows the claim language and includes all preferred embodiments.

**B. "Continuous Side Walls"**

| TERM | IDT'S CONSTRUCTION | DEFENDANTS' CONSTRUCTION |
|---|---|---|
| "continuous side walls"[3] | plain and ordinary meaning<br><br>In the alternative only, if the Court determines that this term should be construed<br><br>"side walls that completely surround" | "uninterrupted walls that are free of breaks on the side of the tray" |

IDT proposes "plain and ordinary meaning" for this term as well as an alternative that tracks the claim language. Defendants' construction adds three improper and confusing limitations to the term. Thus, the Court should adopt IDT's construction.

Defendants' propose to construe the term "continuous side walls" as "uninterrupted walls that are free of breaks on the side of the tray." But there is no support in the claims, specification, or prosecution history for that construction. Without any support, Defendants' construction takes the simple term "continuous side walls" and redefines it by making it include these three limitations: (1) "uninterrupted walls"; (2) "that are free of breaks"; and (3) "on the side of the tray." As the Federal Circuit has stated, "We do not read limitations from the specification into claims; we do not redefine words. Only the patentee can do that." *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1366 (Fed. Cir. 2012). There is no evidence in the specification or prosecution history that the patentee meant to redefine "continuous side walls" to include the

[3] '177 patent, claims 1 and 15.

three separate limitations suggested by Defendants, and thus the Court should reject Defendants' proposal to redefine this term.

Moreover, the part of Defendants' construction requiring that the uninterrupted walls "are free of breaks on the side of the tray" adds even more confusion to the term. That part of the construction implies that there is one "side of the tray" on which no breaks can occur, but that the "uninterrupted walls" may have breaks on other sections of the tray. Defendants should not be allowed to introduce such unwarranted confusion into a simple, three-word phrase.

In contrast, IDT proposes that the "plain and ordinary meaning" of this term suffices as its construction, especially since both of the claims of the '177 patent at issue here (claims 1 and 15) explain "continuous side wall" in context, when they state that they "form a hollow cavity or recess completely surrounded by the side walls." (emphasis added). Should the Court deem that further construction is necessary, IDT's straightforward alternative construction tracks the above claim language to explain that the side walls "completely surround." "The starting point for any claim construction must be the claims themselves." *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999) (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Unlike Defendants' construction, IDT's constructions do not add confusion to the term and do not import unsupported limitations into the term.

### C. "Transition Region"

| TERM | IDT'S CONSTRUCTION | DEFENDANTS' CONSTRUCTION |
|---|---|---|
| "transition region"[4] | plain and ordinary meaning<br><br>In the alternative only, if the Court determines that this term should be construed:<br><br>"an area used to make the transition from the light source to the light emitting area of the panel member ['370 patent] / optical conductor ['660 patent]" | "a region that spreads and transmits light" |

IDT proposes a "plain and ordinary meaning" construction of "transition region," while Defendants propose an unsupported, narrow construction. The Federal Circuit has stated, "We only deviate from the plain and ordinary meaning in instances of lexicography or disavowal." *Novatek, Inc. v. Sollami Co.*, No. 2013-1389, 2014 WL 1229547, *14 (Fed. Cir. Mar. 26, 2014) (citing *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)). Without any proof of the inventor acting as his own lexicographer or disavowing claim scope, the Defendants nonetheless propose that the Court construe "transition region" as this limiting phrase: "a region that spreads and transmits light."

Requiring that the "transition region" both spread and transmit light is an apparent attempt to read a limitation from the abstract of the '660 patent into the claims. *See* '660 patent at abstract ("A transition region is disposed between the light source and output region that is configured to spread and transmit the light by the light source to the output region."). But, because "[w]e do not read limitations from the specification into claims," (*Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, 1369 (Fed. Cir. 2012)), the Court should not read "spreading and transmitting light" into this term.

[4] '660 patent, claims 1, 3, 10 and 33; '370 patent, claims 13 and 47.

In addition to improperly reading limitations into claims, Defendants' construction contradicts the terms of the claims themselves. The claims confirm that a "transition region" should not be required to both "spread and transmit" light. Claim 1 of the '660 patent recites "a transition region disposed between the light source and the output region." Claim 2, which depends from claim 1, further recites "wherein the transition region is configured to spread and transmit the light generated by the light sources to the output region." (emphasis added). Because claim 2 adds the limitation that the "transition region is configured to spread and transmit the light," the court should presume that the "transition region" of claim 1 does not include that limitation. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (citing *Liebel–Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004)) ("The presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim."). "Where . . . the sole difference between the independent claim and the dependent claims is the limitation that one party is trying to read into the independent claim, 'the doctrine of claim differentiation is at its strongest.'" *SanDisk Corp. v. Kingston Tech. Co., Inc.*, 695 F.3d 1348, 1361 (Fed. Cir. 2012).

Additionally, Defendants' construction ignores the primary statement in the specification in which the inventor describes a "transition region." In that statement, the inventor describes the "transition region" of Fig. 1 of the patents-in-suit as "a light transition member or area 4 used to make the transition from the light source 3 to the light emitting panel 2." '660 patent at col. 2, ll. 64-65. Nothing it that statement requires a "transition region" to both "spread and transmit" light.

Because the claims themselves and the specification both show that the inventor did not intend to limit a "transition region" to "a region that spreads and transmits light," the Court should reject Defendants' proposed construction and instead accept IDT's "plain and ordinary meaning"

construction. If the Court decides that further construction is required to explain the "plain and ordinary meaning" of the term to a jury, it should construe the term as "an area used to make the transition from the light source to the light emitting area of the panel member ['370 patent] / optical conductor ['660 patent]." That construction tracks the specification of the patents-in-suit, while avoiding Defendants' attempt to read improper limitations into the claims.

**D. "Deformities … of a Different Type"**

| NO. | TERM | IDT'S CONSTRUCTION | DEFENDANTS' CONSTRUCTION |
|---|---|---|---|
| 2 | "at least some of the light extracting deformities on or in one of the sides are of a different type than the light extracting deformities on or in the other side of the panel member"[5] | plain and ordinary meaning | "at least some of the deformities on or in one side of the panel member are different than the deformities on or in the other side of the panel member in characteristics other than shape" |

IDT proposes a "plain and ordinary meaning" construction of this term, while Defendants again propose an unsupported, narrow construction. Specifically, Defendants impermissibly seek to narrow the term so that deformities of "different type" must mean deformities "different … in characteristics other than shape."

Defendants' proposed construction appears to rest on an incorrect interpretation of the prosecution history that "type" and "shape" are mutually exclusive. But that interpretation ignores the plain reading of the claims, which shows that "type" encompasses "shape." Consider dependent claims 16 and 17 from the '370 patent:

> **16**. The assembly of claim **15** wherein at least one of the types of deformities is prismatic.
>
> **17**. The assembly of claim **15** wherein at least one of the types of deformities is lenticular.

[5] '370 patent, claims 1, 13.

Claim 16 requires that the type of deformities is "prismatic," *i.e.*, in the shape of prism. The specification confirms the obvious conclusion that prismatic means in the shape of a prism. *See* '370 patent at Fig. 4b below; *see also* col 5, ll. 63-65 ("FIGS. 4b and 4c show panel areas 22 on which prismatic surfaces 23 or depressions 24 are formed in the panel areas.").


FIG. 4b

Claim 17 requires that the type of deformities is "lenticular," *i.e.*, in the shape of a specific lens. Because the claims themselves recite a "type of deformity" as "prismatic" and "lenticular," Defendants are incorrect that "type" cannot include "shape." The inventor explicitly claimed specific shapes as "types of deformities."

Defendants' P.R. 4-3 disclosures point to the prosecution history of the '370 patent to support their construction. But for prosecution history disclaimer to apply, the Defendants must show that the inventor made a clear and unmistakable disavowal of claim scope during prosecution of the patent. *Purdue Pharma L.P. v. Endo Pharm. Inc.*, 438 F.3d 1123, 1136 (Fed. Cir. 2006) ("Under the doctrine of prosecution disclaimer, a patentee may limit the meaning of a claim term by making a clear and unmistakable disavowal of scope during prosecution."). Defendants have not identified a "clear and unmistakable disavowal" statement in their P.R. 4-3 disclosures. Instead, Defendants show that the claims once included the phrase "type or shape" but that the inventor deleted "shape" from the claims. *See* Dkt. No. 61 at pp. 27-28. But Defendants' construction is

contradicted by the details of those deletions from the prosecution of claim 16 (formerly claim 18) and claim 17 (formerly claim 19) as shown in this excerpt:

> 18. (currently amended): The assembly of claim 17 wherein at least one of the types ~~or shapes~~ of deformities is prismatic.
>
> 19. (currently amended): The assembly of claim 17 wherein at least one of the types ~~or shapes~~ of deformities is lenticular.

'370 patent, prosecution history, January 15, 2009, Amendment at p. 6. By making those amendments, the inventor showed his intent that a deformity "type" could still include its "shape," because he intentionally kept the shape terms, "prismatic" and "lenticular" and associated them with the "type" of deformity. If the inventor thought "type" did not encompass "shape," he would have also removed the shape adjectives, "prismatic" and "lenticular" from these claims.

The prosecution history of the '370 patent cited by Defendants fails to show that the inventor made an explicit disavowal necessary to exclude the species "shapes" from the genus "types." Without the disavowal advanced by Defendants, this term falls in the territory of "plain an ordinary meaning." It is simple and easily understood by one of ordinary skill in the art.

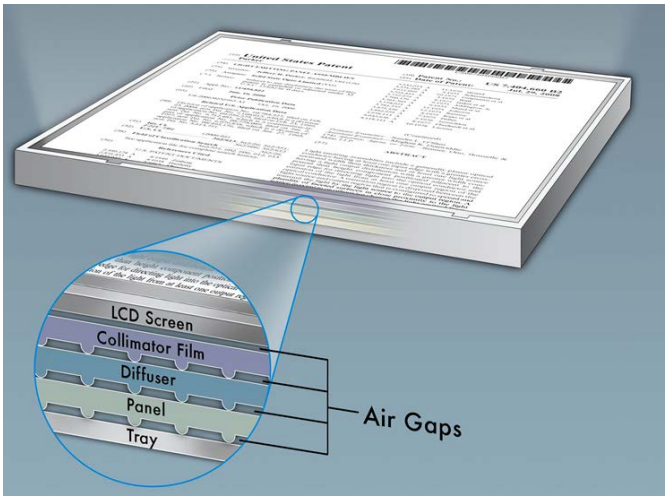
### E. "Air Gap" Terms

| TERM | IDT'S CONSTRUCTION | DEFENDANTS' CONSTRUCTION |
|---|---|---|
| "an air gap therebetween"[6] | plain and ordinary meaning | "a continuous layer of air between the separate transparent sheet or film and the light emitting area such that they have no direct physical contact" |
| "an air gap between the film, sheet, plate or substrate and the panel member"[7] | plain and ordinary meaning | "a continuous layer of air between the sheet, film, plate or substrate and the panel member such that they have no direct physical contact" |

[6] '547 patent, claim 1.
[7] '194 patent, claim 1.

IDT proposes a "plain and ordinary meaning" construction for these term, while Defendants continue to propose constructions with unsupported, additional limitations. Defendants ask the Court to take basic terms that only recite an air gap between two things, *e.g.*, an air gap between a film and panel member, and require that the air gap must be a "continuous layer of air between" that film and panel member. The Defendants' construction further requires that the film and panel member can have "no direct physical contact" because of the air gap. Those extraneous limitations are not supported by the claims, specification, or prosecution history.

Defendants propose the unsupported limitation that an "an air gap between the film … and the panel member" requires "a continuous layer of air between the film … and the panel member" (emphasis added).[8] But the intrinsic evidence cited by Defendants' P.R. 3-4 statement does not show that the inventor sought to explicitly define an "air gap therebetween" as a "continuous layer of air between the film … and the panel member." The illustration from IDT's Technology Tutorial below shows how air gaps can exist between the diffuser film and the collimator film as well as between the diffuser film and the panel, without needing a continuous layer of air between:




[8] Defendants' proposal for "an air gap between the film, sheet, plate or substrate and the panel member" mirrors their construction for "air gap therebetween." Accordingly, the analysis between the two is the same, and IDT's arguments in this section apply to both terms.

Indeed, one of ordinary skill in the art would have understood that an air gap between a film and a panel member need not be a continuous layer of air between the two. Instead, one of skill in the art would have understood that an intermittent air gap between two things remains an air gap.

At the end of their construction, Defendants propose the unsupported limitation the air gap requires "no direct physical contact" between, for example, the film and the panel member. Without any express disclaimer or independent lexicography, there is no basis for adding a negative limitation such as "no direct physical contact." *See Omega Eng'g, Inc., v. Raytek Corp*., 334 F.3d 1314, 1323 (Fed. Cir. 2003) ("neither the district court nor Raytek has identified any express disclaimer or independent lexicography in the written description that would justify adding that negative limitation"). Defendants' "no direct physical contact" limitation means that the film and the panel member, for example, can never touch each other. One of ordinary skill in the art would have understood that an air gap would exist between a film and a panel member even if they touch in some parts. By analogy, Defendants' improper construction would mean that there is no air gap between a car and the road merely because the tires touch the road. Without any evidence to the contrary, excluding such a common sense interpretation would impermissibly exceed the bounds of the plain and ordinary meaning of the term. Ultimately, Defendants' construction is unsupported; the "air gap" terms are simple and easily understood by one of ordinary skill in the art; therefore, they should be construed as "plain and ordinary meaning."

### F. "Desired Light Output" Terms

| TERM | IDT'S CONSTRUCTION | DEFENDANTS' CONSTRUCTION |
|---|---|---|
| "desired light output"[9] | plain and ordinary meaning | "a specific pre-identified output" |

[9] '547 patent, claim 1; '194 patent, claim 23; and '177 patent, claim 15.

| | | |
|---|---|---|
| "desired light output distribution"[10] | plain and ordinary meaning | "desired light output" means "a specific pre-identified output";<br><br>"distribution" does not require construction beyond its plain and ordinary meaning |
| "desired light output distribution or effect"[11] | plain and ordinary meaning | "desired light output" means "a specific pre-identified output";<br><br>"distribution or effect" does not require construction and should beunderstood to have its plain and ordinary meaning by a jury |
| "desired light output color or uniformity" [12] | plain and ordinary meaning | "desired light output" means "a specific pre-identified output";<br><br>"color or uniformity" does not require construction and should be understood to have its plain and ordinary meaning by a jury. |

For each of these terms, the argument reduces to whether "desired light output" needs construction. Defendants argue that the phrase "desired light output" should be construed as "a specific pre-identified output," and the remaining parts of the terms should be construed as "plain and ordinary meaning." IDT proposes a "plain and ordinary meaning" construction for all of these terms. As before, Defendants offer the Court no compelling evidence for their limiting constructions.

Claim terms "bear a 'heavy presumption' that they mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art." *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202 (Fed. Cir. 2002). The word "desired" is a word easily understood by laypeople and those of ordinary skill alike; it means what it says. Nevertheless, without any support from the intrinsic record, Defendants ask this Court to

[10] '547 patent, claim 1.
[11] '194 patent, claim 23.
[12] '177 patent, claim 15.

construe the word "desired" as "specific, predefined." The specification passages cited by Defendants do not define "desired" as "specific, predefined." *See* Dkt. No. 61 at pp. 40-41. Defendants cite to no passages from any prosecution histories to support their construction of "desired." *See id.* And Defendants' cited dictionary definition does not support their construction. *See id.* and Exhibit A, JD0008110, (definition of "desired" "1. To wish for or long for; want. 2. To express a wish for; request …"). One of ordinary skill in the art and the jurors know what the word "desired" means, and the intrinsic record affords no reason to stray from that definition. Accordingly, the Court should construe all of these terms as "plain and ordinary meaning."

**G. "Predetermined"**

| TERM | IDT'S CONSTRUCTION | DEFENDANTS' CONSTRUCTION |
|---|---|---|
| "predetermined"[13] | plain and ordinary meaning | "chosen in advance" |

Defendants ask the Court to construe "predetermined" as "chosen in advance," which improperly imports a process limitation into apparatus claims. The term "predetermined" appears across three of the patents-in-suit, each of which solely contains apparatus claims. Specifically, "predetermined" appears in the context of detailed elements in these apparatus claims:

> *'370 patent, claims 1, 13, 28, 47*: "both the front and back sides having a pattern of light extracting deformities that are projections or depressions on or in the sides to cause light to be emitted from the panel member in a predetermined output distribution"
>
> *'660 patent, claims 1 and 33*: "the optical conductor having at least one output region and a predetermined pattern of deformities configured to cause light to be emitted from the output region"
>
> *'177 patent, claim 1*: "wherein the tray acts as at least one of a back, side edge, and end edge reflector and has one or more secondary flat, angled, faceted or curved reflective or refractive surfaces to redirect at least a portion of the light emitted by the light source in a predetermined manner within the cavity or recess"

[13] '370 patent, claims 1, 13, 29, 47; '660 patent, claims 1, 33; and '177 patent, claim 1.

Defendants' construction asks the Court to improperly import the process limitation "chosen in advance" into each of those apparatus claims. But "[c]ourts must generally take care to avoid reading process limitations into an apparatus claim … " *Research Corp. Technologies, Inc. v. Microsoft Corp.*, 627 F.3d 859, 873 (Fed. Cir. 2010) (quoting *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1344 (Fed. Cir. 2008). Thus, the Court should reject Defendants' attempt to add the process "choosing in advance" into each of those claims.

In addition to improperly importing a process into an apparatus claim, Defendants' construction is not rooted in any statement of lexicography from the inventor. The words "chosen in advance" or any variant thereof do not appear once in the specification of the patents-in-suit. Defendants do not cite to any prosecution history to support their construction. Furthermore, none of the dictionary definitions cited by Defendants include the definition "chosen in advance" or any variant of the word "choice."

The Court should not enter Defendants' construction that has no basis in support from the specification, especially if that construction also introduces a process limitation into an apparatus claim. Instead, the Court should construe this term as "plain and ordinary meaning."

### H. "posts, tabs, or other structural features that provide a mount"

| TERM | IDT'S CONSTRUCTION | DEFENDANTS' CONSTRUCTION |
|---|---|---|
| "posts, tabs, or other structural features that provide a mount"[14] | plain and ordinary meaning | "posts, tabs, or other structural features that extend outward from the tray and upon which the assembly is mounted" |

[14] '974 patent, claims 1, 7.

Defendants argue that the term "posts, tabs, or other structural features that provide a mount" means "posts, tabs, or other structural features that extend outward from the tray and upon which the assembly is mounted." This is a clear attempt to read limitations into the claims.

Defendants' construction recites that the "posts, tabs, or other structural features" must be things "upon which the assembly is mounted." That limitation makes no sense within the larger phrase of claim 1 of the '974 patent, which states that the tray "has posts, tabs, or other structural features that provide a mount for mounting of the assembly into a larger assembly or device." (emphasis added). That phrase states that the posts are for "mounting of the assembly into a larger assembly or device," not that the posts are the things upon which "the assembly is mounted." Furthermore, the specification does not include an instance of inventor lexicography that explains that proposed limitation, and there is no prosecution history disclaimer that Defendants use to support their proposed limitation.

Defendants' also ask the Court to read a limitation into the claims that requires that the posts, tabs, or other structural features "extend outward from the tray." There is no support for that limitation the intrinsic record, and Defendants should not be allowed to manufacture claim limitations where they do not exist.

Without any support to the contrary, the Court should decline to construe this term with the unnecessary limitation proposed by Defendants. The term "posts, tabs, or other structural features that provide a mount" is a straightforward term that requires no construction other than "plain and ordinary meaning."

## I. "Well Defined Deformities" Terms

| TERM | IDT'S CONSTRUCTION | DEFENDANTS' CONSTRUCTION |
|---|---|---|
| "well defined optical elements or deformities"[15] | plain and ordinary meaning<br><br>In the alternative only, if the Court determines that this term should be construed:<br><br>"optical elements or deformities having clearly distinguishable limits, boundaries, or features" | This term is indefinite under 35 U.S.C. § 112(2). |
| "optical elements or deformities of well defined shape"[16] | plain and ordinary meaning<br><br>In the alternative only, if the Court determines that this term should be construed:<br><br>"optical elements or deformities having clearly distinguishable limits, boundaries, or features" | This term is indefinite under 35 U.S.C. § 112(2). |

Defendants argue that "well defined optical elements or deformities" and "optical elements or deformities of well defined shape" are indefinite. The Supreme Court has recently clarified the definiteness standard, requiring that "a patent's claims, viewed in light of the specification and prosecution history, must inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). The specification of the '194 patent informs one of skill in the art, with reasonable certainty, of the scope of "well defined optical elements or deformities" and "optical elements or deformities of well defined shape."

The specification gives one of ordinary skill in the art ample guidance to understand what was meant by "well defined optical elements or deformities." The specification describes specific

[15] '194 patent, claims 1, 16, 31
[16] '194 patent, claim 28

shapes, patterns, and spacing that would have informed one of ordinary skill in the art of the scope of "well defined optical elements or deformities":

> Print patterns of light extracting deformities 21 may vary in shapes such as dots, squares, diamonds, ellipses, stars, random shapes, and the like, and are desirably 0.006 square inch per deformity/element or less. Also, print patterns that are 60 lines per inch or finer are desirably employed, thus making the deformities or shapes 21 in the print patterns nearly invisible to the human eye in a particular application thereby eliminating the detection of gradient or banding lines that are common to light extracting patterns utilizing larger elements.
>
> ***
>
> In addition to or in lieu of the patterns of light extracting deformities 21 shown in FIG. 4a, other light extracting deformities including prismatic surfaces, depressions or raised surfaces of various shapes using more complex shapes in a mold pattern may be molded, etched, stamped, thermoformed, hot stamped or the like into or on one or more areas of the panel member. FIGS. 4b and 4c show panel areas 22 on which prismatic surfaces 23 or depressions 24 are formed in the panel areas, whereas FIG. 4d shows prismatic or other reflective or refractive surfaces 25 formed on the exterior of the panel area. The prismatic surfaces, depressions or raised surfaces will cause a portion of the light rays contacted thereby to be emitted from the panel member. Also, the angles of the prisms, depressions or other surfaces may be varied to direct the light in different directions to produce a desired light output distribution or effect. Moreover, the reflective or refractive surfaces may have shapes or a pattern with no specific angles to reduce moire or other interference effects.

'194 patent at col. 5, ll. 43-52 (emphasis added); col. 5, l. 66 through col. 6, l. l7 (emphasis added).

The '194 patent specification also includes specific figures that would instruct one of ordinary skill in the art on the scope of "well defined optical elements or deformities," *i.e.*, Figs. 4a-4d:

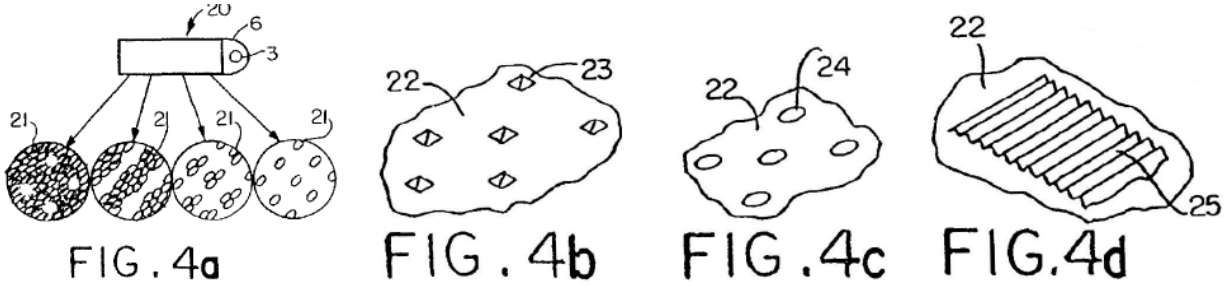



FIG. 4a FIG. 4b FIG. 4c FIG. 4d

In their invalidity contentions, Defendants argue that "the specification fails to explain what is required to make an optical element or a deformity 'well defined' versus poorly defined or any other type of definition."[17] Defendants' contention that one of ordinary skill in the art would be unable to distinguish a "well-defined deformity" from a "poorly defined" fails to give any credit to the abilities of those of skill in the art. As the Supreme Court has stated, "absolute precision is unattainable" for claims (*Nautilus, Inc*., 134 S. Ct. at 2129), yet absolute precision is what Defendants seek. Defendants' argument also fails to account for the Supreme Court's mandate that the "definiteness requirement must take into account the inherent limitations of language." *Nautilus, Inc*., 134 S. Ct. at 2128 (citing *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 731, (2002)). Taking into account the inherent limitations of "well-defined," one of ordinary skill in the art would have nonetheless known what the "well defined" terms meant.[18]

The prosecution history of the '194 patent also helps informs, with reasonable certainty, those skilled in the art about the scope of the "well-defined" terms because the Examiner specifically discussed prior art that he believed showed "well-defined optical elements." In the prosecution of the '194 patent, the Examiner noted that he believed the prior art reference Ishikawa discloses the limitation "wherein at least one surface of the film, sheet, plate or substrate has one or more reflective or refractive surfaces that are <u>well defined optical elements</u> … " Office Action,

[17] Defendants' Invalidity Contentions (Feb. 14, 2014) at p. 22, attached in relevant part as Exhibit A.

[18] *See also* Exhibit B, Declaration of Kenneth I. Werner, at ¶ 7. Based on the Supreme Court's recent opinion in *Nautilus*, in which the Supreme Court placed renewed emphasis on the fact that "the definiteness inquiry trains on the understanding of a skilled artisan at the time of the patent application, not that of a court viewing matters *post hoc*," the Court may determine that it desires additional background as to how a person of ordinary skill in the art at the time of the patent application would understand certain terms. Accordingly, although Plaintiff did not originally submit an expert declaration as extrinsic evidence, both Plaintiff and Defendants explicitly reserved their respective right to do so. *See* Dkt. No. 61, P.R. 4-3 Joint Claim Construction and Prehearing Statement at p. 89. Although Plaintiff does not believe that one is required (because Plaintiff believes that none of the claim terms at issue are indefinite), Plaintiff has attached the Declaration of Mr. Werner for possible consideration by the Court, to the extent the Court believes that such additional information may be helpful to the analysis. Plaintiff submits this Declaration at this time because the *Nautilus* opinion had not issued when the parties' extrinsic evidence submissions were due, and because Plaintiff has been diligently analyzing the applicable facts and law since issuance of the Supreme Court's opinion.

April 10, 2007, at pp. 3-4 (emphasis added). From that statement, one of ordinary skill in the art would have noted that Ishikawa was a potential source for understanding the scope of the "well defined optical element" limitation. Notably in that office action, the examiner did not reject the claim for indefiniteness under, 35 U.S.C. § 112, ¶ 2, because of the "well defined" limitation.

When considering definiteness, "[o]ne must bear in mind, moreover, that patents are not addressed to lawyers, or even to the public generally, but rather to those skilled in the relevant art." *Nautilus, Inc.*, at 134 S. Ct. 2128 (citation omitted). Even without any supporting statements in the specification or prosecution history, one of ordinary skill would have also known what "well defined" meant in context with the terms "well defined optical elements or deformities" and "optical elements or deformities of well defined shape." "Well defined" is an uncomplicated phrase with a simple definition: "having clearly distinguishable limits or boundaries." *See* Dkt. No. 61 at pp. 59 (*The Merriam-Webster Dictionary* (1998), "well-defined" – "having clearly distinguishable limits or boundaries")[19] (*Merriam-Webster's Collegiate Dictionary* (10th Ed. – 2002) "well-defined" - "having clearly distinguishable limits, boundaries, or features") .[20] One of ordinary skill would have had at least a general idea of the definition of "well-defined" and could have used it to understand the meaning of "well defined optical elements or deformities."

The discussion in the specification and prosecution history of '194 patent ensures that one of ordinary skill in the art would know the scope of "well defined optical elements or deformities" and "optical elements or deformities of well defined shape." Furthermore, "well-defined" is an easily understood term with a simple definition. As such, this Court should not find these terms indefinite and instead should construe them as "plain and ordinary meaning." If the Court

[19] Attached hereto as Exhibit C.
[20] Attached hereto as Exhibit D.

determines that further construction is necessary, it should construe these terms as "optical elements or deformities having clearly distinguishable limits, boundaries, or features."

### J. "Pattern of Deformities" is "Quite Small"

| TERM | IDT'S CONSTRUCTION | DEFENDANTS' CONSTRUCTION |
|---|---|---|
| "a pattern of deformities on one side of the sheet or film having a width and length that is quite small in relation to the width and length of the sheet or film"[21] | plain and ordinary meaning | This term is indefinite under 35 U.S.C. § 112(2). |

Defendants argue that the term "a pattern of deformities on one side of the sheet or film having a width and length that is quite small in relation to the width and length of the sheet or film" is indefinite. But Defendants cannot show that this term meets the indefiniteness standard. Therefore, this straightforward term should be construed as "plain and ordinary meaning."

Defendants make the unfounded argument that "the specification fails to explain what is required to make a width and length 'quite small' as opposed to simply 'small' or 'not very small' or any other relative size."[22] Once again, Defendants are asking for absolute precision, when all that is required is reasonable certainty. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014) ("a patent's claims, viewed in light of the specification and prosecution history, must inform those skilled in the art about the scope of the invention with reasonable certainty"); *id.* ("absolute precision is unattainable").

One of ordinary skill in the art would have known with reasonable certainty the scope of "quite small" in the context of this term simply by reading the claim itself because it provides a reference point for defining what it means for a pattern of deformities to be "quite small," *i.e.*, the

[21] '547 patent, claim 1.
[22] Exhibit A, Defendants' Invalidity Contentions (Feb. 14, 2014) at p. 24.

term itself states that pattern of deformities is quite small "in relation to the width and length of the sheet or film." Furthermore, one of ordinary skill would have understood "quite small" because the specification provides examples:

> Print patterns of light extracting deformities 21 may vary in shapes such as dots, squares, diamonds, ellipses, stars, random shapes, and the like, and are desirably 0.006 square inch per deformity/element or less. Also, print patterns that are 60 lines per inch or finer are desirably employed, thus making the deformities or shapes 21 in the print patterns nearly invisible to the human eye in a particular application thereby eliminating the detection of gradient or banding lines that are common to light extracting patterns utilizing larger elements. Additionally, the deformities may vary in shape and/or size along the length and/or width of the panel members.

'547 patent at col. 5, ll. 42-53 (emphasis added).

The '547 patent's prosecution history also discusses "quite small" in the context of a prior art reference, which helps inform, with reasonable certainty, those skilled in the art about the scope of the "quite small" term. In the prosecution of the '547 patent, the Examiner rejected several claims based on the Nakamura reference; stating "figure 2 [of Nakamura] shows that the deformities are quite small in relation to the width and length of the substrate." Office Action, May 5, 2003, at p. 5. From that statement, one of ordinary skill in the art would have known that Nakamura was a potential source for understanding the scope of the "quite small" term. Notably in that office action, the examiner did not find that "quite small in relation to the width and length of the substrate" was indefinite.

One of ordinary skill would have understood the scope of the term "a pattern of deformities on one side of the sheet or film having a width and length that is quite small in relation to the width and length of the sheet or film" with reasonable certainty.[23] The claim language itself is basic and

[23] *See also* Exhibit B, Declaration of Kenneth I. Werner, at ¶ 8.

provides its own relative point for defining "quite small"; the specification provides examples; and the prosecution history provides an example. Thus, Defendants' indefiniteness argument must fail.

**K. "pass through a liquid crystal display with low loss"**

| TERM | IDT'S CONSTRUCTION | DEFENDANTS' CONSTRUCTION |
|---|---|---|
| "pass through a liquid crystal display with low loss"[24] | plain and ordinary meaning<br><br>In the alternative only, if the Court determines that this term should be construed:<br><br>"efficiently conducts light through a liquid crystal display" | This term is indefinite under 35 U.S.C. § 112(2). |

Defendants argue that the term "pass through a liquid crystal display with low loss" is indefinite. As with the prior terms, Defendants cannot show that this term meets the indefiniteness standard. As such, this term should be construed as "plain and ordinary meaning" as proposed by IDT.

Defendants make the unsound argument that this term is indefinite because "there is no disclosure as to how much loss would constitute low loss as opposed to 'high loss,' or 'medium loss,' or other amount of loss."[25] Once again, Defendants are asking for absolute precision, when all that is required is reasonable certainty of the scope of the invention. One of ordinary skill would have understood the scope of the term "pass through a liquid crystal display with low loss" through the discussions in the specification, such as the following:

> The deformities 21 may also be used to control the output ray angle distribution of the emitted light to suit a particular application. For example, if the panel assemblies are used to provide a liquid crystal display backlight, the light output will be more efficient if the deformities 21 cause the light rays to emit from the panels at predetermined ray angles such that they will pass through the liquid crystal display with low loss.

[24] '547 patent, claim 1; '370 patent, claims 1, 29; '194 patent, claims 1, 16, and 28.
[25] Exhibit A, Defendants' Invalidity Contentions (Feb. 14, 2014) at p. 23.

'547 patent at col. 5, ll. 23-30 (emphasis added). From that passage, one of ordinary skill in the art would have understood the scope of the term "passing through a liquid crystal display with low loss" to cover the situation when a more efficient light output is created by using deformities to cause light rays to emit at predetermined ray angles from the backlight panel.

As seen in the above block quotation, "low loss" goes hand-in-hand with the efficient use of light ("the light output will be more efficient if … they [the light rays] pass through the liquid crystal display with low loss"). And one of ordinary skill in the art would have further understood the scope of "low loss" terms in view of efficiency, which is one of the goals of the invention:

> the present invention relates to several different light emitting panel assembly configurations which provide for better control of the light output from the panel assemblies and for more efficient utilization of light, which results in greater light output from the panel assemblies

'547 patent at col. 1, ll. 21-25 (emphasis added). According to that passage, one of ordinary skill in the art would have been reasonably certain that the scope of the "low loss" term encompassed the efficient use of the light.

Even without any guidance in the specification or prosecution history, it would have been obvious to one of ordinary skill in the art what it meant to "pass through a liquid crystal display with low loss." Any person of ordinary skill in the art of LCD backlights would have been aware of the concept of low loss; without low loss, the backlight would unnecessarily waste power and battery life and would not direct bright light through the LCD. *See, e.g.,* '547 patent at col. 1, ll. 64-67 ("The various light emitting panel assemblies of the present invention are very efficient panel assemblies that may be used to produce increased uniformity and higher light output from the panel members with lower power requirements.").

The specification of the patents-in-suit ensures that the one of ordinary skill in the art would know the scope of the term "passing through a liquid crystal display with low loss" with reasonable

certainty.[26] Furthermore, that term is easily understood from a plain reading of the claim. Therefore, this Court should not find "passing through a liquid crystal display with low loss" indefinite and instead should construe it as "plain and ordinary meaning." If the Court determines that further construction is necessary, it should construe these term in relation to the "efficiency" disclosure in the specification discussed above. In that scenario, IDT's proposes construing the term as "efficiently conducts light through a liquid crystal display."

**L. "to [suit/fit] a particular application"**

| TERM | IDT'S CONSTRUCTION | DEFENDANTS' CONSTRUCTION |
|---|---|---|
| "to [suit/fit] a particular application"[27] | plain and ordinary meaning | This term is indefinite under 35 U.S.C. § 112(2). |

Defendants argue that the term "to [suit/fit] a particular application" is indefinite. As before, Defendants cannot demonstrate that this term meets the indefiniteness standard set forth in *Nautilus*. As such, this term should be construed as "plain and ordinary meaning."

In contradiction to Defendants' indefiniteness argument, the specification clearly discloses the "particular applications" for which this invention is intended:

> The various light emitting panel assemblies disclosed herein may be used for a great many different applications including for example LCD back lighting or lighting in general, decorative and display lighting, automotive lighting, dental lighting, phototherapy or other medical lighting, membrane switch lighting, and sporting goods and apparel lighting or the like.

'194 patent at col. 9, ll. 1-12. After reading that passage, one of ordinary skill in the art would have been reasonably certain of the scope of this term. The scope of "particular applications" is "LCD back lighting or lighting in general, decorative and display lighting, automotive lighting, dental

[26] *See also* Exhibit B, Declaration of Kenneth I. Werner, at ¶ 9.
[27] '194 patent, claim 31; '974 patent, claim 5; '177 patent, claims 1, 14, 15.

lighting, phototherapy or other medical lighting, membrane switch lighting, and sporting goods and apparel lighting or the like."

One of ordinary skill in the art would have read the claims and written description with those applications in mind. For example, one ordinary skill in the art would have read claim 1 of the '177 patent and known that the limitation "and at least one sheet, film or substrate overlying the assembly for controlling the light emitted from the assembly to fit a particular application" would mean that the sheet could control light emitted from the assembly to fit the application of LCD back lighting, lighting in general, or any of the other specifically enumerated applications in the patent. Thus, one of ordinary skill in the art would have understood the scope of these terms with reasonable certainty.[28]

## IV. CONCLUSION

For the reasons discussed above, IDT respectfully requests that the Court adopt all of its proposed constructions and reject all of Defendants' constructions.

[28] *See also* Exhibit B, Declaration of Kenneth I. Werner, at ¶ 10.

Dated: June 16, 2014

Respectfully submitted,

*/s/ Jeffrey R. Bragalone*

Jeffrey R. Bragalone (lead attorney)
Texas Bar No. 02855775
Patrick J. Conroy
Texas Bar No. 24012448
Justin B. Kimble
Texas Bar No. 24036909
T. William Kennedy, Jr.
Texas Bar No. 24055771
Daniel F. Olejko
Pennsylvania Bar No. 205512
**Bragalone Conroy PC**
2200 Ross Avenue
Suite 4500W
Dallas, TX 75201
Tel: (214) 785-6670
Fax: (214) 785-6680
jbragalone@bcpc-law.com
pconroy@bcpc-law.com
jkimble@bcpc-law.com
bkennedy@bcpc-law.com
dolejko@bcpc-law.com

T. John Ward Jr.
Texas Bar No. 00794818
Claire Abernathy Henry
Texas Bar No. 24053063
**Ward & Smith Law Firm**
1127 Judson Road, Suite 220
Longview, TX 75601
Tel: (903) 757-6400
Fax: (903) 757.2323
jw@wsfirm.com
claire@wsfirm.com

Attorneys for Plaintiff
**INNOVATIVE DISPLAY TECHNOLOGIES LLC**

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served this 16th day of June, 2014, with a copy of this document via electronic mail pursuant to Local Rule CV-5(d).

*/s/ T. William Kennedy*